FIG. 1

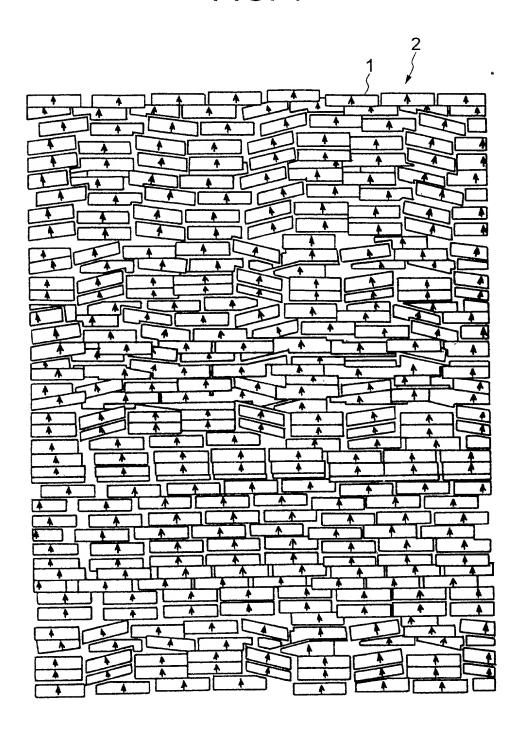


FIG. 2A

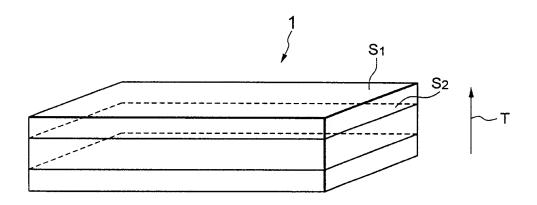


FIG. 2B

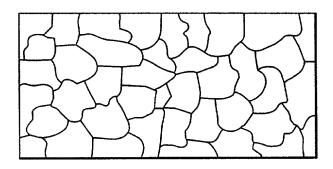


FIG. 3

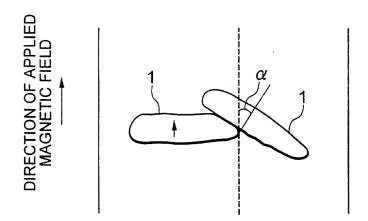
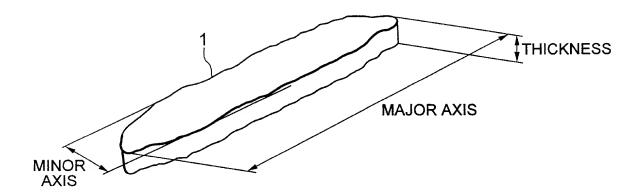


FIG. 4



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FIG. 5A

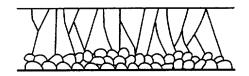


FIG. 5B

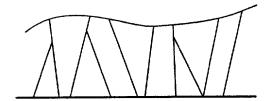
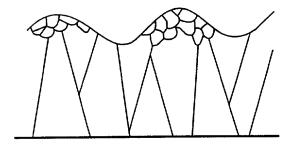


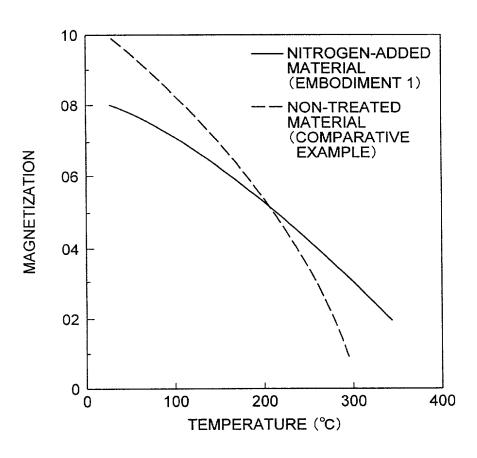
FIG. 5C



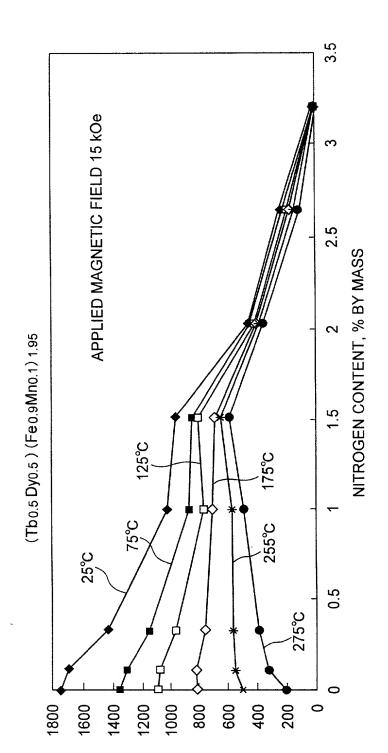
Bull Bull

No fine for some well from the

FIG. 6



=1G. 7



MAGNETOSTRICTION, ppm

OXYGEN CONCENTRATION (ppm) DEFLECTIVE STRENGTH (RELATIVE VALUE, %)

MATERIAL AND MANUFACTURING
METHOD THEREOF, AND
MAGNETOSTRICTIVE ACTUATOR AND
MAGNETOSTRICTIVE SENSOR THEREWITH
Inventor(s): Tomohisa ARAI et al.
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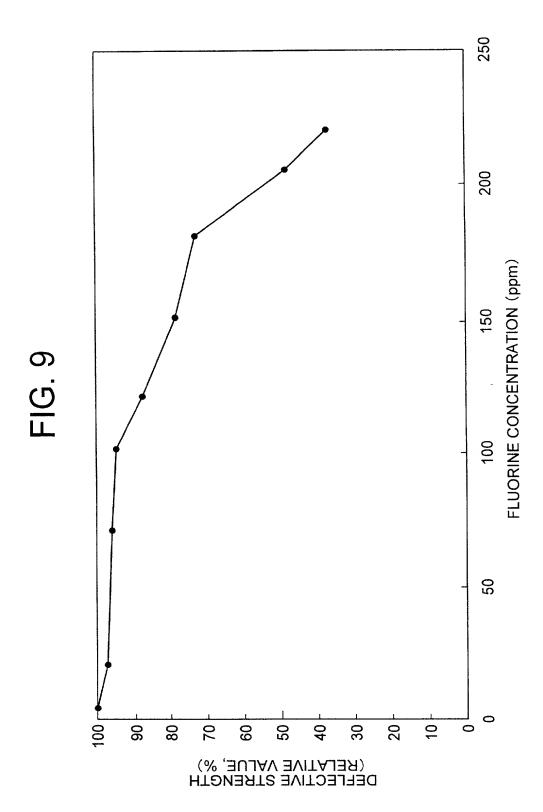


FIG. 10

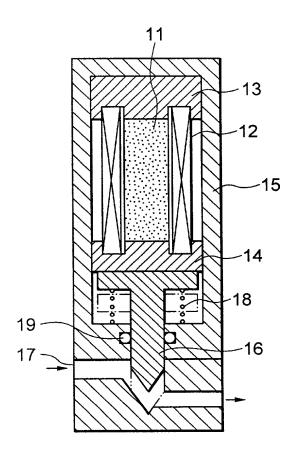


FIG. 11

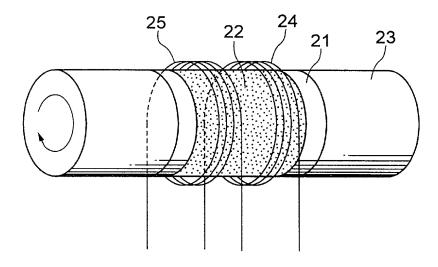
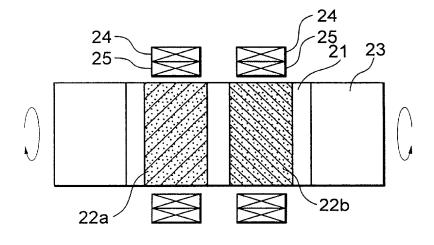


FIG. 12



+45° ANISOTROPIC -45° ANISOTROPIC

FIG. 13

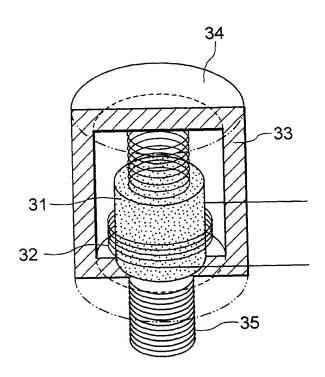


FIG. 14

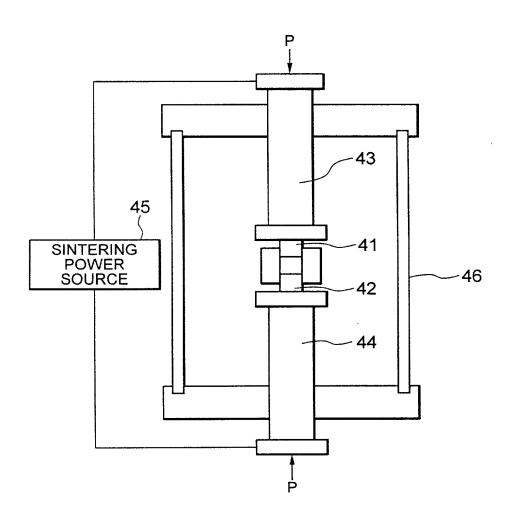
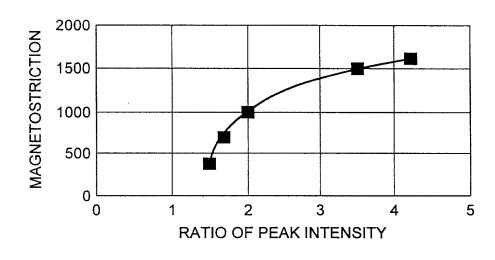
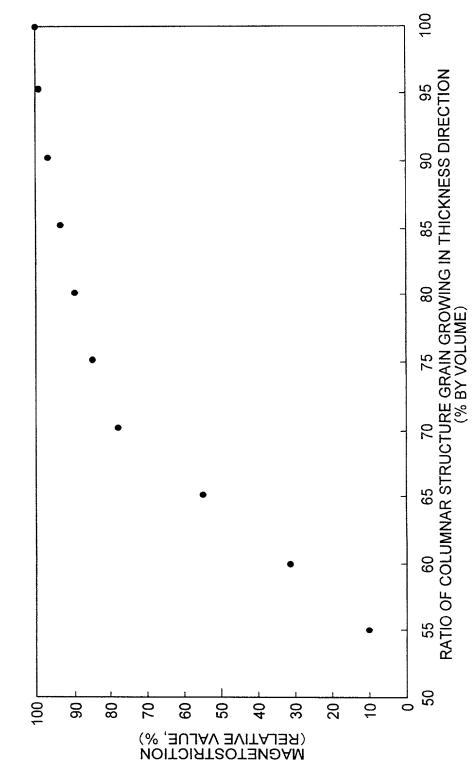


FIG. 15







Title: GIANT MAGNETOSTRICTIVE
MATERIAL AND MANUFACTURING
METHOD THEREOF, AND
MAGNETOSTRICTIVE ACTUATOR AND
MAGNETOSTRICTIVE SENSOR THEREWITH
Inventor(s): Tomohisa ARAI et al.
DOCKET NO.: 017447/0171

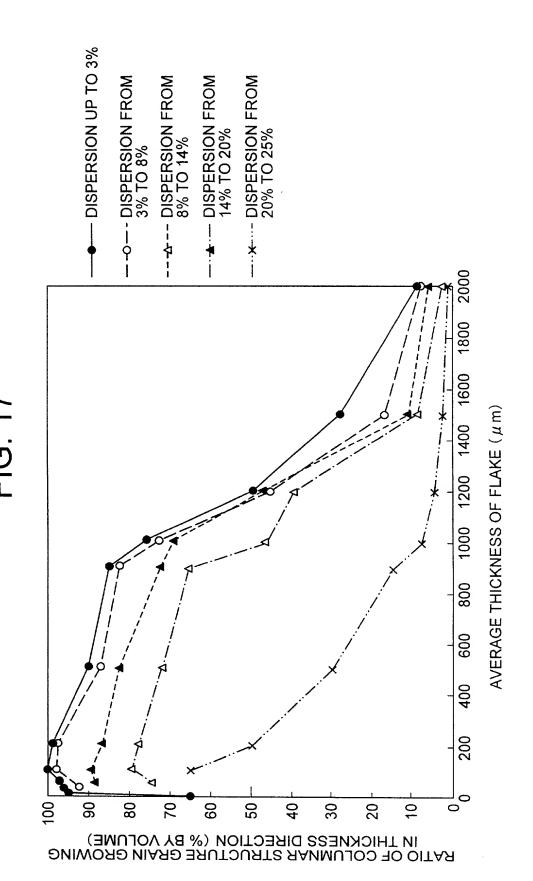


FIG. 18

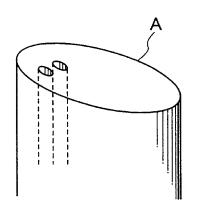
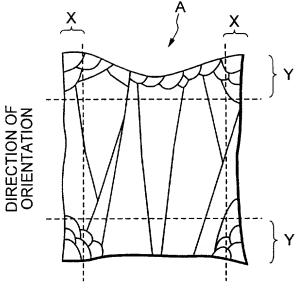


FIG. 19



COOLED SURFACE